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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,575	02/08/2006	Ashleigh Glen Quick	p29195	2529
7055 7590 04/22/2010 GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191				
EXAMINER SMITH, SHEILA B				
ART UNIT 2617		PAPER NUMBER		
NOTIFICATION DATE 04/22/2010		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com  
pto@gbpatent.com

# Office Action Summary

**Application No.**

10/567,575

**Applicant(s)**

QUICK ET.AL.

**Examiner**

SHEILA B. SMITH

**Art Unit**

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☒ Claim(s) 26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SE/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION*****Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 5-7, 10-13, 15, 17, 20 and 23 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 21, 23-27, 29-31, 33 of copending Application No. 10/567,572. Although the conflicting claims are not identical, they are not patentably distinct from each other as shown from the comparison table below

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Instant Application 10/567575	Copending Application 10/567572
Claim 5	Claim 21

<p><i>5. A radio communication system including a transceiver/transmitter and at least two transceiver/receivers,</i></p> <p><i>wherein the transceiver/transmitter transmits data in a first time slot to the transceiver/receivers and upon receipt of the data, each of the transceiver/receivers return either a first acknowledgement state in a second time slot, after the first time slot,</i></p> <p><i>or a second acknowledgement state in a third time slot after the second time slot.</i></p> <p><b>The first and second acknowledgement states are either a positive acknowledge and a negative acknowledge, respectively, or a negative acknowledge and a positive</b></p>	<p><i>21. A radio communication system including a transceiver/transmitter, and at least two transceiver/receivers,</i></p> <p><i>wherein the transceiver/transmitter transmits data in a first time slot to the transceiver/receivers, and wherein upon receipt of the data, each of the transceiver/receivers is configured to return either a first acknowledgement state in a second time slot, after the first time slot, is configured to return</i></p> <p><i>a second acknowledgement state in a third time slot, after the second time slot,</i></p> <p><i>and is configured to return a collision acknowledgement in a fourth time slot.</i></p>
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<b>acknowledge, respectively</b>	
<b>Claim 11</b>	<b>Claim 26</b>
<p><i>11. A transceiver/receiver for use in a radio communication system including at least one transceiver/transmitter and at least one other transceiver/receiver,</i></p> <p><i>in use, the transceiver/receiver upon receiving a data packet in a first time slot from the transceiver/transmitter either transmits a first acknowledgement state in a second time slot, after the first time slot,</i></p> <p><i>or transmits a second acknowledgement state in a third time slot, after the second time slot.</i></p> <p><b>The first and second acknowledgement</b></p>	<p><i>26. A transceiver/receiver for use in a radio communications system including at least one transceiver/transmitter and at least one other transceiver/receiver,</i></p> <p><i>wherein, the transceiver/receiver upon receiving a data packet in a first time slot from said transceiver/transmitter, is configured to transmit a first acknowledgement state in a second time slot, after the first time slot,</i></p> <p><i>and is configured to transmits a second acknowledgement state in a third time slot, after the second time slot,</i></p> <p><i>and is configured to transmits a collision acknowledgement state in a fourth time slot, after the third time slot.</i></p>

<b>states are either a positive acknowledge and a negative acknowledge, respectively, or a negative acknowledge and a positive acknowledge, respectively</b>	
<b>Claim 17</b> <i>17. A transceiver/transmitter for use in a communication system including at least one other transceiver/receiver,</i>  <i>wherein in use, the transceiver/receiver transmits a data packet in a first time slot to the at least one transceiver/receiver and receives either a first acknowledge state in a second time slot after the first time slot from one or more of the transceiver/receivers</i>  <i>or receives a second acknowledgement state in a third time slot after the second time slot from at least one of the transceiver/receivers.</i>	<b>Claim 31</b> <i>31. A transceiver/transmitter for use in a communications system including at least one other transceiver/receiver,</i>  <i>wherein in use, the transceiver/transmitter transmits a data packet in a first time slot to the at least one transceiver/receiver and is configured to receives a first acknowledge state in a second time slot, after the first time slot from one or more of the transceivers/receivers,</i>  <i>is configured to receives a second acknowledgement state in a third time slot after the second time slot from one or more of the transceiver/receivers,</i>

<p><b>The first and second acknowledgement states are either a positive acknowledge and a negative acknowledge, respectively, or a negative acknowledge and a positive acknowledge, respectively</b></p>	<p>and is configured to receive a collision acknowledgement state in a fourth time slot after the third time slot, from one or more of the transceiver/receivers.</p>
<p><i>The newly added limitations of claims 5, 11, and 17 are unpatentable over the co-pending application 10/567572 in view of Shloss et al. The co-pending application 10/567572 discloses everything as applied to claims 5, 11, and 17 above, however, the co-pending application 10/567572 fails to specifically disclose a first and second acknowledgement states with a positive acknowledgement and a negative acknowledge respectively, which in a similar field of endeavor is disclosed in Shloss et al. in column 10 lines 60-67 and column 11 lines 1-3, therefore it would have been obvious to modify the co-pending application 10/567572 with the teachings of Shloss et al. for the purpose of indicating if the transmission with received or not in case a retransmission is needed.</i></p>	

**Regarding claim 5** of the instant application , this claim corresponds to claim 21 of intervening application 10/567572.

**Regarding claim 6** of the instant application , this claim corresponds to claim 23 of intervening application 10/567572.

**Regarding claim 7** of the instant application , this claim corresponds to claim 24 of intervening application 10/567572.

***Regarding claim 10*** of the instant application , this claim corresponds to claim 25 of intervening application 10/567572.

***Regarding claim 11*** of the instant application , this claim corresponds to claim 26 of intervening application 10/567572.

***Regarding claim 12*** of the instant application , this claim corresponds to claim 27 of intervening application 10/567572.

***Regarding claim 13*** of the instant application , this claim corresponds to claim 29 of intervening application 10/567572.

***Regarding claim 15*** of the instant application, this claim corresponds to claim 30 of intervening application 10/567572.

***Regarding claim 17*** of the instant application , this claim corresponds to claim 31 of intervening application 10/567572.

***Regarding claim 20*** of the instant application , this claim corresponds to claim 33 of intervening application 10/567572.

***Regarding claim 23*** of the instant application , this claim corresponds to claim 30 of intervening application 10/567572.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2, 6, 13, 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which



Art Unit: 2617

applicant regards as the invention. These claims state “wherein the first acknowledgement state is a positive acknowledgement and the second acknowledgement state is a negative acknowledgement”, they fail to further limit the independent claims they depend on claims 1, 5, and 11 which have been amended to now read “wherein the **first and second** acknowledgement states are **either a positive acknowledgement and a negative, respectively, or a negative acknowledgement and a positive acknowledgement, respectively**”

*Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hottinen et al. in view of Shloss et al. (U.S. Patent Number 5,307,349).

*Regarding claim 1.* Hottinen et al. discloses a communications method for use in a wireless network of device comprising, transmitting, from a first device (10), data in a first time slot (as exhibited in figure 1, and which reads on transmission 1), receiving at one or more other devices, the data transmitted from the first device and either, for transmitting a first acknowledgement state in a second time slot after the first time slot (which reads on “In particular, a first feedback information relating to the channel estimate is transmitted in two

successive time slots" as disclosed in paragraph 0070), or transmitting a second acknowledgement state in a third time slot after the second time slot, (which reads on "The first and second feedback signals may be transmitted in different time slots" as disclosed in paragraph 0045). However Hottinen et al. fails to specifically disclose wherein the first and second acknowledgement states are either a positive acknowledge and a negative acknowledgement, respectively, or a negative acknowledge and a positive acknowledge, respectively.

In a similar field of endeavor Shloss et al. discloses a first and second acknowledgement states are either a positive acknowledge and a negative acknowledgement, respectively, or a negative acknowledge and a positive acknowledge, respectively (as exhibited in figure 5, and which reads on column 10 lines 61-68 and column 11 lines 1-2).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to improve Hottinen et al. with the teachings of Shloss et al. for the purpose of indicating if the transmission with received or not in case a retransmission is needed.

*Regarding claim 2*, Hottinen et al. discloses as best understood by the examiner in view of the 112 second rejection, the first acknowledgement and the second acknowledgement state (which reads on "first and second feedback" disclosed in paragraph 0045). However Hottinen et

al. fails to specifically disclose the first acknowledgement is positive and the second acknowledgment is negative.

In a similar field of endeavor Shloss et al. discloses a first acknowledgement is positive and the second acknowledgment is negative (as exhibited in figure 5, and which reads on column 10 lines 61-68 and column 11 lines 1-2).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to improve Hottinen et al. with the teachings of Shloss et al. for the purpose of indicating if the transmission with received or not in case a retransmission is needed.

*Regarding claim 6*, Hottinen et al. discloses as best understood by the examiner in view of the 112 second rejection, the first acknowledgement and the second acknowledgement state (which reads on “first and second feedback” disclosed in paragraph 0045). However Hottinen et al. fails to specifically disclose the first acknowledgement is positive and the second acknowledgment is negative.

In a similar field of endeavor Shloss et al. discloses a first acknowledgement is positive and the second acknowledgment is negative (as exhibited in figure 5, and which reads on column 10 lines 61-68 and column 11 lines 1-2).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to improve Hottinen et al. with the teachings of Shloss et al. for the purpose of indicating if the transmission with received or not in case a retransmission is needed.

6. Claims 3, 7, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hottinen et al. in view of Shloss et al. and further in view of You et al. (Patent Number 5,570,355).

***Regarding claim 3.*** Hottinen et al. in view of Shloss et al. discloses a communications protocol according to claim 2 above, in addition Hottinen et al. discloses a transmit diversity method for a wireless communication system, additionally Hottinen et al. discloses the second and third time slots are fixed in length (as exhibited in figure 3B which reads on “In FB mode 2 only a phase weight feedback values comprising two bits is fed back to the BS” and disclosed in paragraph 0016), however Hottinen fails to specifically disclose wherein the first time slot is variable in length.

In a similar field of endeavor You et al. discloses a data transmission method for a wireless communication system, additionally You et al. discloses (“wireless communication method using communication channels capable of transferring packet control data having variable slot lengths” as disclosed in paragraph 0040) which reads on (a) a first time slot is variable in length.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to improve Hottinen et al. with the first time slot is variable in length as taught by You et al. for the purpose of enabling the receiver to accurately determine a transmission format and improving the performance of the system.

**Regarding claim 7**, Hottinen et al. in view of Shloss et al. discloses a communications protocol according to claim 6 above, in addition Hottinen et al. discloses a transmit diversity method for a wireless communication system, additionally Hottinen et al. discloses the second and third time slots are fixed in length (as exhibited in figure 3B which reads on “In FB mode 2 only a phase weight feedback values comprising two bits is fed back to the BS” and disclosed in paragraph 0016), however Hottinen fails to specifically disclose wherein the first time slot is variable in length.

In a similar field of endeavor You et al. discloses a data transmission method for a wireless communication system, additionally You et al. discloses (“wireless communication method using communication channels capable of transferring packet control data having variable slot lengths” as disclosed in paragraph 0040) which reads on (a) a first time slot is variable in length.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to improve Hottinen et al. with the first time slot is variable in length as taught by You et al. for the purpose of enabling the receiver to accurately determine a transmission format and improving the performance of the system.

**Regarding claim 8**, Hottinen et al. in view of Shloss et al. and further in view of You et al. discloses everything as applied above, in addition as best understood by the examiner in view of the 112 rejection Hottinen et al. discloses each transceiver (11, 21 as exhibited in figure 5 and as

disclosed in paragraph 0039) monitors the transmission medium (which reads on channel) during any time slots during which each respective transceiver is not transmitting (which reads on feedback mode).

7. Claim 4, is rejected under 35 U.S.C. 103(a) as being unpatentable over Hottinen et al. in view of Shloss et al. and further in view of Hass et al. (U.S Patent Publication Number 2004/0025018).

*Regarding claim 4.* Hottinen et al. in view of Shloss et al. discloses a communications protocol according to claim 2, additionally, Hottinen et al. discloses a transmit diversity method for a wireless communication system, however, the combination of Hottinen et al. in view of Shloss et al. fails to disclose sufficient redundancy to allow it to be recovered in the presence of received errors and the negative acknowledge includes the transmission of a specific coded value containing sufficient redundancy to allow it to be recovered in the presence of received errors.

In a similar field of endeavor Hass et al. discloses a secure data transmission protocol in a mobile wireless communication system, additionally Hass et al. discloses a specific coded value containing sufficient redundancy to allow it to be recovered in the presence of received errors and the negative acknowledge includes the transmission of a specific coded value containing sufficient redundancy to allow it to be recovered in the presence of received errors (which reads

on "Rabin's algorithm is in essence an error correction code, in the sense that it adds redundancy to the data to allow recovery from a number of faults" as disclosed in paragraph 0100).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to improve Hottinen et al. with the concept of a specific coded value containing sufficient redundancy to allow it to be recovered in the presence of received errors and the negative acknowledge includes the transmission of a specific coded value containing sufficient redundancy to allow it to be recovered in the presence of received errors as taught by Hass et al. for the purpose of successfully reconstructing the original message.

8. Claims 9, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hottinen et al. in view of Shloss et al. and further in view of You et al. (Patent Number 5,570,355) and further in view of (Hass et al. (U.S Patent Publication Number 2004/0025018).

*Regarding claim 9*, Hottinen et al. in view of Shloss et al. and further in view of You et al. discloses a communications protocol according to claim 8, in addition Hottinen et al. discloses a transmit diversity method for a wireless communication system, additionally, Hottinen et al. discloses as best understood by the examiner in view of the 112 rejection a radio communication system wherein upon each transceiver/receiver detecting a correctly coded transmission in the negative acknowledge time slot (which reads on second feedback). However, the combination of Hottinen et al. in view of Shloss et al. and further in view of You et al. fails to specifically disclose transceiver/ receiver discards the data previously received.

In a similar field of endeavor Haas et al. discloses a secure data transmission protocol in a mobile wireless communication system, additionally Hass et al. discloses transceiver/ receiver (node) discards the data previously received (which reads on “identifying relayed request packets, so that packets that correspond to recent previously seen requests can be discarded” as disclosed in paragraph 0059).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to improve Hottinen et al. with transceiver/ receiver discards the data previously received as taught by Haas et al. for the purpose of maintaining a limited amount of information.

***Regarding claim 10,*** Hottinen et al. in view of Shloss et al. and further in view of You et al. and further in view of Hass et al. discloses everything in according to claim 9 above, however, that combination fails to specifically disclose that upon detecting a correctly coded transmission in the negative acknowledge time slot, the transceiver/transmitter retransmits the data to each of the transceiver/receivers.

The examiner contends that it would have been obvious to one of ordinary skill in the art to modify the above combination with detecting a correctly coded transmission in the negative acknowledge time slot, the transceiver/transmitter retransmits the data to each of the transceiver/receivers for the purpose of insuring that the information will be completely or correctly received.



9. Claims 5, 11-14, 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farley (Patent Publication Number 2002/0101839) in view of Shloss et al.

*Regarding claim 5.* Farley et al. discloses a channel to carry selected messages from each of multiple units to a base station, additionally Farley et al. discloses a communications protocol in a radio communication system including a transceiver/transmitter (18 as exhibited in figure 1) and at least two transceiver/receivers (12-1,12-2, ... as exhibited in figure 1), wherein the transceiver/transmitter transmits data in a first time slot to the transceiver/receivers (40, which reads on the forward link to forward data to subscribers as exhibited in figure 1) and wherein upon receipt of the data, the transceiver/receivers return either a first acknowledgement state in a second time slot, after the first time slot (which reads on multiple acknowledgments are sent in the different time slots as disclosed in paragraph 0008). However Hottinen et al. fails to specifically disclose wherein the first and second acknowledgement states are either a positive acknowledgement and a negative acknowledgement, respectively, or a negative acknowledgement and a positive acknowledgement, respectively.

In a similar field of endeavor Shloss et al. discloses a first and second acknowledgement states are either a positive acknowledgement and a negative acknowledgement, respectively, or a negative acknowledgement and a positive acknowledgement, respectively (as exhibited in figure 5, and which reads on column 10 lines 61-68 and column 11 lines 1-2).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to improve Hottinen et al. with the teachings of Shloss et al. for the purpose of indicating if the transmission with received or not in case a retransmission is needed.

*Regarding claim 11*, Farley et al. discloses a channel to carry selected messages from each of multiple units to a base station, additionally Farley et al. discloses a transceiver/receiver (18) for use in a radio communication system (as exhibited in figure 1) including at least one transceiver/transmitter (18) and at least one other transceiver/receiver (12-1, 12-2, ...), in use, the transceiver/receiver upon receiving a data packet in a first time slot from the transceiver/transmitter (40, which reads on the forward link to forward data to subscribers, as exhibited in figure 1) a first acknowledgement state in a second time slot, after the first time slot (which reads on multiple acknowledgments are sent in the different time slots as disclosed in paragraph 0008). However Hottinen et al. fails to specifically disclose wherein the first and second acknowledgement states are either a positive acknowledge and a negative acknowledgement, respectively, or a negative acknowledge and a positive acknowledge, respectively.

In a similar field of endeavor Shloss et al. discloses a first and second acknowledgement states are either a positive acknowledge and a negative acknowledgement, respectively, or a negative acknowledge and a positive acknowledge, respectively (as exhibited in figure 5, and which reads on column 10 lines 61-68 and column 11 lines 1-2).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to improve Hottinen et al. with the teachings of Shloss et al. for the purpose of indicating if the transmission with received or not in case a retransmission is needed.

**Regarding claim 12**, Farley et al. in view of Shloss et al. discloses a everything as applied above, in addition Farley et al. discloses transceiver/receiver (18) further receives the first acknowledgement state in the second time slot (40 as exhibited in figure 1, and as disclosed in paragraph 0008) from the at least one other transceiver/receiver (12-1, 12-2, ... as exhibited in figure 1) in the communication system or receives the second acknowledgement state in the third time slot (which reads on multiple acknowledgments are sent in the different time slots as disclosed in paragraph 0008) in a third time slot from the at least one other transceiver/receiver (12-1, 12-2,...).

**Regarding claim 13**, Farley et al. discloses as best understood by the examiner in view of the 112 second rejection, the first acknowledgement and the second acknowledgement state (which reads on “first and second feedback” disclosed in paragraph 0045). However Farley et al. fails to specifically disclose the first acknowledgement is positive and the second acknowledgment is negative.

In a similar field of endeavor Shloss et al. discloses a first acknowledgement is positive and the second acknowledgment is negative (as exhibited in figure 5, and which reads on column 10 lines 61-68 and column 11 lines 1-2).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to improve Farley et al. with the teachings of Shloss et al. for the purpose of indicating if the transmission with received or not in case a retransmission is needed.

**Regarding claim 14**, Farley et al. in view of Shloss et al. discloses everything as applied above, additionally Farley et al. discloses transceiver/receiver (14) monitors the transmission medium (channel) during any time slots during which each respective transceiver is not transmitting (which reads on “to monitor, receive and decode data” as disclosed in paragraph 0075).

**Regarding claim 17**, Farley et al. discloses a channel to carry selected messages from each of multiple units to a base station, additionally Farley et al. discloses a transceiver/transmitter (18) for use in a communication system including at least one other transceiver/receiver (12-1, 12-2, ...), wherein in use, the transceiver/receiver (18) transmits a data packet in a first time slot (40 data packet is transmitted to 12-1, 12-2, ... as exhibited in figure 1) to at least one transceiver/receiver (12-1, 12-2, ...) and receives a first acknowledge state in a second time slot after the first time slot from (which reads on multiple acknowledgments are sent in the different time slots as disclosed in paragraph 0008 as exhibited in figure 1) from one or more of the transceiver/receiver (12-1, 12-2, ... as exhibited in figure 1). However Farley et al. fails to specifically disclose wherein the first and second acknowledgement states are either a positive acknowledge and a negative acknowledgement, respectively, or a negative acknowledgement and a positive acknowledgement, respectively.

In a similar field of endeavor Shloss et al. discloses a first and second acknowledgement states are either a positive acknowledge and a negative acknowledgement, respectively, or a

negative acknowledge and a positive acknowledge, respectively (as exhibited in figure 5, and which reads on column 10 lines 61-68 and column 11 lines 1-2).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to improve Farley et al. with the teachings of Shloss et al. for the purpose of indicating if the transmission with received or not in case a retransmission is needed.

***Regarding claim 18,*** Farley et al. discloses as best understood by the examiner in view of the 112 second rejection, the first acknowledgement and the second acknowledgement state (which reads on “first and second feedback” disclosed in paragraph 0045). However Farley et al. fails to specifically disclose the first acknowledgement is positive and the second acknowledgment is negative.

In a similar field of endeavor Shloss et al. discloses a first acknowledgement is positive and the second acknowledgment is negative (as exhibited in figure 5, and which reads on column 10 lines 61-68 and column 11 lines 1-2).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to improve Farley et al. with the teachings of Shloss et al. for the purpose of indicating if the transmission with received or not in case a retransmission is needed.

***Regarding claim 19,*** Farley et al. in view of Shloss et al. discloses everything as applied above, additionally Farley et al. discloses transceiver/receiver (14) monitors the transmission medium (channel) during any time slots during which each respective transceiver is not

transmitting (which reads on “to monitor, receive and decode data” as disclosed in paragraph 0075).

Claims 15, 16, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farley (Patent Publication Number 2002/0101839) in view of Shloss et al. and further in view of New Go-Back-N ARQ Protocols for Point-to-Multipoint communications (herein referred to as XP 00470653).

*Regarding claim 15*, Farley et al. in view of Shloss et al. discloses everything as applied to claim 11, additionally Farley et al. discloses at least one other transceiver/receiver (which reads on receiving (18) acknowledge for one of the 12-1, 12-2, ... as exhibited in figure 1) however Farley et al. in view of Shloss et al. fails to specifically disclose receiving a negative acknowledge from at least one transceiver/receiver and the transceiver/ receiver discards the data packet received in the first time slot.

In a similar field of endeavor XP 00470653 discloses (“a NACK together with sequence number and channel BER information is sent back and this frame and subsequence frames with a frame number bigger than that of the erroneous frame are discarded” as disclosed on page 1015, column 1 and paragraph 1) which reads on receiving a negative acknowledge from at

least one transceiver/receiver and the transceiver/ receiver discards the data packet received in the first time slot.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to improve Farley et al. with transceiver/ receiver discards the data previously received as taught by XP 00470653 for the purpose of making room available for any subsequent transmission of data.

***Regarding claim 16,*** Farley et al. in view of Shloss et al. discloses everything as applied to claim 15, however Farley et al. in view of Shloss et al. fails to specifically disclose the discarded data is replaced with data retransmitted by the transceiver/ transmitter.

In a similar field of endeavor XP 00470653 discloses (“If this copy of the frame is erroneous, the receiver discards the erroneous copy and checks the next receiver copy” as disclosed on page 1015, column 1 and paragraph 1) which reads on the discarded data is replaced with data retransmitted by the transceiver/ transmitter.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to improve Farley et al. with the discarded data is replaced with data retransmitted by the transceiver/ transmitter as taught by XP 00470653 for the purpose of making room available for any subsequent transmission of data.

***Regarding claim 20*** Farley et al. in view of Shloss et al. discloses everything as applied to claim 15, however the combination of Farley et al. in view of Shloss et al. fails to

specifically disclose upon receiving the negative acknowledge the transceiver/transmitter retransmits the data to the at least one transceiver/receiver.

In a similar field of endeavor XP 00470653 discloses ("a NACK together with sequence number and channel BER information is sent back and this frame and subsequence frames with a frame number bigger than that of the erroneous frame are discarded . The transmitter sends out another m(k) copies of the message" as disclosed on page 1015, column 1 and paragraph 1) which reads on upon receiving the negative acknowledge the transceiver/transmitter retransmits the data to the at least one transceiver/receiver.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to improve Farley et al. with upon receiving the negative acknowledge the transceiver/transmitter retransmits the data to the at least one transceiver/receiver as taught by XP 00470653 for the purpose of ensuring the information is received.

***Regarding claim 22*** Farley et al. in view of Shloss et al. discloses everything as applied to claim 15, however the combination of Farley et al. in view of Shloss et al. fails to specifically disclose upon receiving the negative acknowledge the transceiver/transmitter retransmits the data to the at least one transceiver/receiver.

In a similar field of endeavor XP 00470653 discloses ("a NACK together with sequence number and channel BER information is sent back and this frame and subsequence frames with a frame number bigger than that of the erroneous frame are discarded . The transmitter sends out another m(k) copies of the message" as disclosed on page 1015, column 1 and paragraph 1)



which reads on upon receiving the negative acknowledge the transceiver/transmitter retransmits the data to the at least one transceiver/receiver.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to improve Farley et al. with upon receiving the negative acknowledge the transceiver/transmitter retransmits the data to the at least one transceiver/receiver as taught by XP 00470653 for the purpose of ensuring the information is received.

Claims 21, 23, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Black et al. (Patent Publication Number 2004/0081124) in view of New Go-Back-N ARQ Protocols for Point-to-Multipoint communications (herein referred to as XP 00470653).

***Regarding claim 21.*** Black et al. discloses a CDMA system that conforms to the mobile station-base station compatibility standard for dual mode wideband spread spectrum cellular system, additionally Black et al. discloses a wireless network including a transceiver/transmitter (AN) and at least two transceivers/receivers (AT), a method of disseminating data to be shared by the at least two transceiver/receivers (AT), the method including: Transmitting from the transceiver/transmitter (AN), the data to the at least two transceiver/receivers (which reads on “Multiple AT’s can be communicating within a sector covered by a single BTS disclosed in paragraph 0007); Upon unsuccessfully receiving the data at least one of the at least two transceiver/receivers, transmitting negative acknowledge data to indicate unsuccessful receipt of the data (which reads on paragraph 0013); Retransmitting the data from the transceiver/transmitter (which reads on paragraph 0013); However Black et al.

fails to specifically disclose replacing the data received by the plurality of transceiver/receivers with the retransmitted data.

In a similar field of endeavor XP 00470653 discloses ("The transmitter sends out another  $m(K)$  copies of the message" as disclosed on page 1015, column 1 and paragraph 1) which reads on replacing the data received by the plurality of transceiver/receivers with the retransmitted data.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to improve Black et al. with replacing the data received by the plurality of transceiver/receivers with the retransmitted data as taught by XP 00470653 for the purpose of making room available for any subsequent transmission of data.

***Regarding claim 23***, Black et al. discloses everything as applied to claim 21 above, however Black et al. fails to specifically disclose upon receiving the negative acknowledge, the other transceiver/receivers discard the data received from the transceiver/transmitter before receiving the retransmitted data.

In a similar field of endeavor XP 00470653 discloses ("a NACK together with sequence number and channel BER information is sent back and this frame and subsequence frames with a frame number bigger than that of the erroneous frame are discarded . The transmitter sends out another  $m(k)$  copies of the message" as disclosed on page 1015, column 1 and paragraph 1) which reads on replacing the data received by the plurality of transceiver/receivers with the retransmitted data upon receiving the negative acknowledge, the other transceiver/receivers

discard the data received from the transceiver/transmitter before receiving the retransmitted data.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to improve Black et al. with upon receiving the negative acknowledge, the other transceiver/receivers discard the data received from the transceiver/transmitter before receiving the retransmitted data as taught by XP 00470653 for the purpose of making room available for any subsequent transmission of data.

***Regarding claim 25.*** , Black et al. in view of XP 00470653 discloses everything as applied to claim 23 above, additionally Black et al. discloses wherein upon successful receipt of data, the transceiver/receiver transmits a positive acknowledge (which reads on “Upon successful decoding of the first half of the frame, the AN can send an acknowledge message to the AT to indicate that the AN has successfully decoded the data received” as disclosed in paragraph 0019).

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Black et al. (Patent Publication Number 2004/0081124) in view of New Go-Back-N ARQ Protocols for Point-to-Multipoint communications (herein referred to as XP 00470653) and further in view of Farley (Patent Publication Number 2002/0101839) .

***Regarding claim 24.*** , Black et al. in view of XP 00470653 discloses everything as applied to claim 21 above, however the combination of Black et al. in view of XP00470653 fails to specifically disclose the step of transmitting data is done in a first time slot, the step of transmitting the negative acknowledge is done in a second time slot and the step of retransmitting is done in a third time slot.

In a similar field of endeavor Farley et al. discloses the step of transmitting data is done in a first time slot, the step of transmitting the negative acknowledge is done in a second time slot and the step of retransmitting is done in a third time slot (which reads on multiple acknowledgments are sent in different time slots as disclosed in paragraph 0008).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to improve Black et al. in view of XP 00470653 with the step of transmitting data is done in a first time slot, the step of transmitting the negative acknowledge is done in a second time slot and the step of retransmitting is done in a third time slot as taught by Farley et al. for the purpose of supporting multiple message-types.

***Allowable Subject Matter***

10. Claim 26 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

11. Applicant's arguments filed 10/09/2009 have been fully considered but they are not persuasive. Regarding applicants request for withdrawal of the double patenting rejection, the examiner contend that MPEP 804 states if the application which claims the improvement, issues prior to the base application the double patenting rejection should be maintained.

12. Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHEILA B. SMITH whose telephone number is (571)272-7847. The examiner can normally be reached on Monday-Thursday 6:00 am - 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost can be reached on 571-272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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March 23, 2010